

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars.

1. In the specification

The specification is amended, as shown in the foregoing AMENDMENT TO THE SPECIFICATION, to place the application into better form according to U.S. practice and standards. It is respectfully submitted that no new matter is added, as the changes simply correct minor informalities.

Entry of the AMENDMENT TO THE SPECIFICATION is respectfully requested in the next Office communication.

2. In the claims

As shown in the foregoing LIST OF CURRENT CLAIMS, the claims have been amended to more clearly point out the subject matter for which protection is sought.

A. Claim amendments

Claims 1-30 and 46-64 are withdrawn from further consideration.

Claims 3 and 59 are also currently amended to correct minor informalities associated with the preliminary amendment filed February 13, 2006.

Claims 31, 33, 34, and 43 are amended to correct minor informalities pointed out in the Office action.

It is respectfully submitted that no new matter is added by way of the amendments since the changes merely correct minor informalities.

Claims 1, 2, 4-30, 32, 35-42, 44-58, and 60-64 are left unchanged.

Entry of the LIST OF CURRENT CLAIMS is respectfully requested in the next Office communication.

B. Rejection of claims 33, 34, and 43 under 35 U.S.C. § 112 second paragraph

Reconsideration of this rejection is respectfully requested, in view of the amendments to claims 33, 34, and 43, on the basis that claims 33, 34, and 43 are clear and definite.

Claims 33, 34, and 43 are amended to replace the word “mainly” with the word “substantially,” which is understood to require the elements following the word substantially, but allows for imperfections or other variations. It is respectfully submitted that claims 33, 34, and 43 are now clear and definite, and withdrawal of this rejection is respectfully requested.

C. Objection to claim 31

Reconsideration and removal of this objection is respectfully requested, in view of the amendment to claim 31.

Claim 31 is amended in accordance with the suggested change in the Office action.

Accordingly, removal of this objection is respectfully requested.

3. Election/Restriction

The finality of the restriction requirement and the withdrawal of claims 1-30 and 46-64 from further consideration are acknowledged.

4. Rejection of claims 31-34 and 39-45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent no. 6,761,959 (*Bonkowski et al.*) in view of U.S. publication no. 2004/0177789 (*Heider et al.*)

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 31. The remaining claims 32-34 and 39-45 depend from claim 31, and are therefore patentable as containing all of the recited features and steps of claim 31, as well as for their respective recited features and steps.

The method according to claim 31 is a method for manufacturing a security element for security papers, documents of value and the like, which contains a thin-layer element with color shift effect. The thin layer element has a structure comprising three layers, a reflection layer, an absorber layer and a spacer layer disposed between reflection layer and absorber layer. The spacer layer is applied by a printing method with a printing ink having dispersion particles with monomodal or oligomodal size distribution.

The color shift effect of the thin-layer element is based upon interference effects that result from multiple reflections in the various partial layers of the thin-layer element. In other words, it is the combination of the reflection layer, the absorber layer, and the spacer layer which is responsible for the color shifting of the thin-layer element (specification paragraphs [0003], [0004]).

As discussed in the specification at paragraph [0004], previous thin dielectric layers are produced by a complex vapor deposition method.

This is further described in the *Bonkowski* patent, where the formation of a dielectric layer 20 positioned between an absorber layer 18 and a reflector layer 22 is accomplished by the use of a conventional deposition process, such as physical vapor deposition (PVP), reactive DC sputtering, RF sputtering, or the like (col. 4, lines 62-67; col. 5, lines 15-18).

This is in contrast to the assertion on page 4 of the Office action that the dielectric (spacer) layer 20 is applied by a printing method, as is required by claim 31.

While the *Bonkowski* patent does disclose the use of various printing methods to apply a color shifting ink or paint to form an optical coating 26, the optical coating 26 is not a spacer layer positioned between a reflection layer and an absorber layer, as is required by claim 31. Instead, the ink or paint used to form the optical coating 26 includes flakes of thin film material having an absorber layer, a dielectric layer, and optionally, a reflector layer, formed in the same manner as described above (col. 7, line 42 through col. 8, line 2).

Thus, the *Bonkowski* patent fails to disclose a thin layer element that has a structure comprising three layers, a reflection layer, an absorber layer and a spacer layer disposed between reflection layer and absorber layer, where the spacer layer is applied by a printing method, as is required by claim 31.

Further, as acknowledged on page 4 of the Office action, the *Bonkowski* patent fails to disclose a printing ink having dispersion particles with monomodal or oligomodal size distribution, as required by claim 31.

The Office action turns to the *Heider* publication to cure the deficiencies of the *Bonkowski* patent with respect to a printing ink having dispersion particles with monomodal or oligomodal size distribution, as required by claim 31. However, the *Heider* publication has a filing date of December 17, 2003, which is later than the August 12, 2003 filing date of the foreign priority document DE 10337331.4 of the pending application. (A translation of the foreign priority document DE 10337331.4, along with statement that the translation is accurate, will be filed shortly.)

Thus, the *Heider* publication cannot be considered a prior art reference under 35 U.S.C. § 102(e) or § 103(a).

Further, the *Heider* publication fails to disclose printing a spacer layer of a thin-layer element, as is required by claim 31, and further, taking into account the composition (paragraphs [0033] to [0045]) and properties (paragraph [0008]) of the inorganic spherical absorption pigments disclosed in the *Heider* publication, it appears clear that the inorganic spherical absorption pigments are unsuitable for use in the spacer layer of a thin-layer element, regardless of whether or not the pigments have a bimodal particle size distribution.

Accordingly, since the *Heider* publication cannot be considered as a prior art reference, and further fails to make up for the shortcomings of the *Bonkowski* patent, which are discussed above in detail, it is respectfully submitted that a *prima facie* case of obviousness cannot be established with respect to claim 31. Accordingly, withdrawal of this rejection is respectfully requested.

As mentioned above, applicants submit that independent claim 31 is patentable and therefore, claims 32-34 and 39-45, which depend from claim 31, are also considered to be patentable as containing all of the features and steps of claim 31, as well as for their respective recited features and steps.

In particular, claim 32 further requires that the spacer layer is applied by gravure printing, flexographic printing or offset printing. As discussed in detail above, the *Bonkowski* patent only discloses the use of a conventional deposition process, such as physical vapor deposition (PVP), reactive DC sputtering, RF sputtering, or the like to apply the spacer layer (col. 4, lines 62-67; col. 5, lines 15-18). Thus, it is respectfully submitted that *prima facie* case of obviousness cannot be established with respect to claim 32, and withdrawal of this rejection is respectfully requested.

5. Allowable subject matter

The applicants gratefully acknowledge the indication of allowable subject matter in claims 35-38. However, since it is submitted that claim 31, from which claims 35-38 depend, is patentable, as discussed in detail above, claims 35-38 have not been rewritten in independent form at this time.

6. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

Please charge any additional fees required or credit any overpayments in connection with this paper to Deposit Account No. 02-0200.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,  
  
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